IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

FENNER INVESTMENTS, LTD.,	§	
	§	
Plaintiff	§	
	§	**CIVIL ACTION NO. 2:05cv5**
vs.	§	
	§	
JUNIPER NETWORKS INC., NOKIA, INC., NORTEL NETWORKS, INC., CISCO SYSTEMS, INC., ERICSSON, INC., ERICSSON AB, TELEFONAKTIEBOLAGET, LM, ERICSSON AND ALCATEL USA, INC.	§	
	§	
Defendant.	§	

MEMORANDUM OPINION AND ORDER

This claim construction Opinion construes terms in U.S. Patent No. 6,819,670 ("the '670 patent) and 5,561,706 ("the '706 patent"). Fenner Investments, Ltd. ("Fenner") alleges Defendants UTStarcom, Inc., Nortel Networks, Inc., Cisco Systems, Inc., and Alcatel USA, Inc., infringe both the '670 and '706 patent, but allege infringement of only the '706 patent against Juniper Networks, Inc., Nokia, Inc., Lucent Technologies, Inc., Ericsson, Inc., Ericsson AB, and Telefonaktiebolaget LM Ericsson.[1]

The Patents

The patents-in-suit deal with mobile telecommunications networks. The '670 patent involves data packet routing in networks utilizing routers that allow users to connect with one another over the network. A user may be identified anywhere on the network by its assigned Internet Protocol (IP) Address. Prior art routers associated users

[1] Defendants UTStarcom, Inc., Alcatel USA, Inc., and Lucent Technologies, Inc. entered into settlement agreements with Fenner, and have been dismissed from the case. *See* Doc. 335, 336, and 369.

with a particular physical location on the network, forcing users to change identifiers as they changed locations on the network. By contrast, the IP address claimed in the '670 patent allows a user to move from place to place while retaining the same identifier, enabling other users to connect with the mobile user regardless of physical location on the network.

The '706 patent involves a method for providing users access to a communications network through a selective switch. Each user is assigned a personal identification number ("PIN"), and each PIN is authorized to use services contained in authorized service profiles. The service profiles are maintained by billing authorities, which also monitor the costs associated with a PIN using a billing code. A single PIN may have multiple service profiles maintained by multiple billing authorities. A user seeking to gain access to the switch provides a PIN and billing code. The switch sends that information to the billing authority which correlates the PIN and billing code with a service profile. If the service profile provides for access in that area, the billing authority sends the service profile to the switch where it is stored. The switch then uses the service profile to determine whether to grant the requested access.

Applicable Law

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. *See id.*; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell*

Atl. Network Servs., Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312-13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id*. Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id*. Differences among the claim terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314-15.

Claims "must be read in view of the specification, of which they are a part." *Id*. (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed. Cir. 1995)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id*. (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415

F.3d at 1316. In these situations, the inventor's lexicography governs. *Id*. Also, the specification may resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. But, "although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent.").

Although extrinsic evidence can be useful, it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition is entirely unhelpful to a court. *Id*. Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*.

The Terms

The '706 Patent

Calls

Fenner submits that "calls" should not be construed because it is not in any of the claims, appearing only in the preamble. Alternatively, if the Court elects to construe "calls," Fenner contends it should mean, "voice or data communications sessions." Defendants[2] argue "calls" should be construed because it provides needed meaning to the claims, and is properly understood to mean "voice communications sessions." For the following reasons, the Court will not construe "calls."

When limitations in the body of a patent claim rely upon, and derive antecedent basis from, the claim preamble, the preamble may act as a necessary component of the claimed invention. *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006). In order to be limiting, the preamble must recite essential structure that is important to the invention or necessary to give meaning to the claim. *Id. citing NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1305-06 (Fed. Cir. 2005), *cert. denied*, ---U.S.---, 126 S.Ct. 1174, 163 L.Ed.2d 1141 (2006). However, patent claim preamble language that merely states the purpose or intended use of the invention is generally not treated as limiting the scope of the claim. *Bicon, Inc.*, 441 F.3d at 952.

Defendants cite *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298 (Fed. Cir. 1999) to argue that the preamble of claim 1 is necessary to give meaning to the claim. However, Defendants' reliance on *Pitney Bowes* is misplaced. In that case, the

[2] In discussing the '706 terms the Court will refer to UTStarcom, Inc., Nortel Networks, Inc., Cisco Systems, Inc., Alcatel USA, Inc., Juniper Networks, Inc., Nokia, Inc., Lucent Technologies, Inc., Ericsson, Inc., Ericsson AB, and Telefonaktiebolaget LM Ericsson, collectively as "Defendants."

term at issue appeared in the preamble as well as the claims, and was necessary to discerning some of the claim language. *Pitney Bowes*, 182 F.3d at 1306 (stating that "the term 'spots' is initially used in the preamble…then appears twice in each of the independent claims. That the claim term 'spots' refers to the components that together make up the images of generated shapes on the photoreceptor is only discernible from the claim preamble.") By contrast, "calls" appears once in the preamble of Claim 1 and does not reappear in the body of the claim. Further, it is not necessary to discern any of the claimed terms or understand the claimed method. The claimed method for providing access to a mobile user may be properly understood without reference to the type of communication awaiting access.

Even if the preamble were limiting, the Court would still elect not to construe "calls" because the plain and ordinary meaning of the term is consistent with its meaning within the patent. Accordingly, the Court will not construe the term "calls."

Radio Frequency Communication Switch

Fenner seeks to define "radio frequency communication switch" as "a personal communications system switch including radio frequency links," whereas Defendants argue for, "a telecommunications device, with a radio frequency interface, that selectively connects calls."

Fenner's proposed limitation "including radio frequency links," implies that radio frequency links are incorporated into or constitute a part of the radio frequency switch. However, radio frequency links are better understood as avenues or conduits that connect discrete parts. In support of its construction, Fenner cites a passage of the specification that reads, "[a] plurality of personal identification numbers are able to communicate with

a personal communications systems switch via wire line and radio frequency links." '706 Patent, Col 2, ln. 32-34. The term "via" in Fenner's reference instructs that the personal identification numbers and personal communications systems switch are separate elements that communicate through the wire line and radio frequency links, whereas Fenner's construction suggests that radio frequency links are a part of a radio frequency switch. Defendants' phrase "radio frequency interface" more accurately reflects the relationship between the radio frequency switch and the radio frequency links.

Neither "a personal communications system switch" nor "a telecommunications device" is necessary or clarifying and could potentially inject confusion into the construction. Further, the Court declines to adopt Defendants proposed phrase "selectively connects calls" for the reasons discussed in the section on "calls." Accordingly, the Court construes radio frequency switch to mean, "a switch with a radio frequency interface."

Personal Identification Number

Fenner maintains that a PIN is "a number corresponding to individual system users," while Defendants advocate, "a number, separate from a billing code, identifying an individual mobile user that permits someone to call the user using that number." At the hearing, the parties agreed to the following language, "a number, separate from a billing code, identifying an individual system user," but Defendants persist that the construction should conclude with their additional language "that permits someone to call the user using that number."

Defendants argue Fenner disclaimed claim scope by distinguishing a prior art code that, "does not permit someone to call the mobile user using the code." Amendment,

11/30/95 at 6. However, this portion of the prosecution history does not amount to an express or unequivocal disclaimer as Defendants suggest. *Middleton, Inc. v. Minn. Mining & Mfg. Co.*, 311 F.3d 1384, 1388 (Fed.Cir. 2002). The quote is the last line in a paragraph where Fenner principally described a prior art code, which identified, "a description of the services stored in a national database" that the user could, "temporarily program…into a local public telephone exchange, for use with a particular telephone number." *Id*. Fenner distinguished its PIN, which identifies a system user, from a code used to retrieve a set of personalized services. Fenner's statement that the prior art does not permit the user to be called is a permissive and relatively generalized statement, especially in view of the specificity with which the prior art was described. Without further discussion clarifying how the PIN participates in permitting the user to be called, this portion of the prosecution history cannot be characterized as an unequivocal disclaimer. *Middleton,* 311 F.3d at 1388.

Accordingly, the Court construes personal identification number to mean, "a number, separate from a billing code (as construed herein), identifying an individual system user."

Billing Code

Fenner contends "billing code" should retain its plain and ordinary meaning, alternatively suggesting that if the Court chooses to construe the term, that it should find a "billing code" "identifies a particular billing authority." Defendants argue the "billing code" is "a number code, separate from the personal identification number, that enables selection of a billing authority." As the parties had agreed to include "separate from a billing code" in the construction of PIN there was little argument on that phrase at the

hearing. The remaining issues before the Court involve the difference between "enabling selection," and "identifies," and whether a "billing code" is necessarily a number.

Defendants contend that a billing code "enables selection of a billing authority," and offer segments of the prosecution history in support of its construction. Amendment, 12/22/94 at 9-10; Amendment, 11/30/95 at 7. Having disclaimed claim scope during prosecution, Defendants argue, the Court should not allow Fenner to recapture that claim scope by finding that a "billing code" "identifies" billing authorities. The Court disagrees with Defendant, and construes "billing code" to mean, "a code separate from a personal identification number, identifying a particular billing authority."

The specification and claims consistently describe a billing code *identifying* a billing authority. *See* 6:5-7 ("a billing code identifying one of the plurality of billing authorities"); 6:12-13 ("requesting a service profile of the mobile user from the billing authority identified by the received billing code"); *see also* 2:43-4. Further, Defendants' prosecution history evidence does not justify its proposed limitation.

First, the Amendment dated 11/30/95 where Fenner describes, "a billing code which enables selection of multiple billing authorities," does not, taken in context, rule out the possibility that a billing code may identify a billing authority. Amendment 11/30/95 at 7. The sentence following Defendants' quotation reads,

> [t]he fact that Lee et al. describes programming a local exchange with personalized calling features in response to providing a code does not suggest, it is submitted, use of a separate billing code to *identify* a billing authority in a conventional cellular system much less suggest a system in which a billing authority *identifier* and personal identification number for routing calls to a mobile user are utilized during log on or registration." (emphasis added).

Disclaimers of claim scope must be clearly and unambiguously express to surrender subject matter during prosecution. *Middleton,* 311 F.3d at 1388. The prosecution excerpt

Defendants rely on is not sufficiently clear to show that a billing code does not identify a billing authority.

Second, even if Fenner had unequivocally established that a billing code "enables selection," during prosecution history, that would not necessarily preclude a billing code from "identifying" a billing authority because the phrase "enables selection" is broader than "identifies." "Enables selection" is a permissive phrase suggesting that the billing code somehow allows for, or participates in, the selection of a billing authority. The term "identifies" suggests a specific role within the selection process, namely, specifying the appropriate billing authority. It is difficult to conceive how claim scope could be disclaimed by representing a broader scope during prosecution than was eventually claimed in the patent. Thus, Defendants have not established that Fenner relinquished claim scope by referring to "enabling selection" of a billing authority during prosecution.

Defendants also argue that a "billing code" is a number, but their support from the prosecution history is not compelling. In a paper broadly describing the proposed networking system, which was later submitted to the patent office during prosecution, the inventor explained that a "'Billing Authority' operates like a credit card company, offering on-line credit and service profile verification," further explaining that, "we propose every PCS call should be a 'credit card' call," where "[t]he credit card numbers (or billing codes) used by a PID would contain location information to access the issuing 'billing authority.'" Peter R. Fenner, *Mobil Address Management and Billing for Personal Communications* (IEEE 1992) at 253, 254. The inventor analogized the then available "credit card" call to his system as a descriptive aid but never went so far as to require that the billing code necessarily be a number. Further, although the specification

refers to the billing code as a number, the claims do not require that the billing code be a number, and the Court will not import the limitation.

Accordingly, the Court construes the term "billing code" to mean, "a code, separate from a personal identification number (as construed herein), identifying a particular billing authority (as construed herein)."

Billing Authorities

Fenner argues that "billing authorities" should retain its plain and ordinary meaning, but if the Court elects to construe this term it should mean, "authorities which track billing costs associated with a personal identification number." Defendants argue that "billing authorities" are "the different entities responsible for billing individuals for use of allowed calling services." For the following reasons, the Court construes "billing authorities" to mean "the different entities which track billing costs associated with a personal identification number (as construed herein)."

Defendants argue that Fenner's construction ignores the reality that billing includes charging and invoicing as well as tracking, maintaining that "billing authorities" are entities like AT&T or VISA that provide services, track the costs associated with those services, charge the customer for those costs, and then send out bills or invoices to collect on those charges. However, the patent specification and claims consistently discuss "billing authorities" maintaining service profiles and monitoring costs, only inferentially referring to the actual billing of individuals as Defendants' construction suggests. 1:50-59; 5:64-66; 6:5-15.

Presumably, these billing authorities will attempt to collect money for the services provided in the service profile, but stating that the billing authority described in the

claims is "responsible for billing individuals for use of allowed calling services" is beyond the scope of the term as used in the patent and is simply not necessary to define "billing authority." Therefore, the Court construes "billing authorities" to mean "the different entities which track billing costs associated with a personal identification number (as construed herein)."

Billing authorities maintaining a service profile for the mobile user

Fenner argues that the terms in this phrase should retain their plain and ordinary meaning, while Defendants argue that the phrase means, "more than one billing authority maintaining a service profile for the mobile user." The Court favors Defendants' construction, which finds support in the surrounding claim language[3] and intrinsic evidence.

The claim language suggests that more than one billing authority maintains a service profile for the mobile user, and different billing authorities may maintain the same service profile or an additional service profile. This interpretation is consistent with language from the specification suggesting that the patent deals with mobile users having multiple service profiles and multiple billing authorities. Col. 2, ln. 47-52. "The system uses…*multiple* billing authorities to maintain the services and the billing costs associated with *a* personal identification number (PID)." 1:51-54. Accordingly, the Court construes "billing authorities maintaining a service profile for the mobile user" to mean, "more than one billing authority (as construed herein) maintaining a service profile (as construed herein) for the mobile user."

[3] The claim language reads, "receiving from the mobile user at the communication switch a billing code identifying one of the plurality of billing authorities maintaining a service profile for the mobile use, wherein different ones of the plurality of billing authorities may maintain the service profile or a second profile for the mobile user."

Service Profile

Fenner argues "service profile" "describes the services for which a personal identification number is authorized," but Defendants contend this term means, "a description of the valid service area and any authorized calling services (e.g., call waiting, paging, voicemail)." For the following reasons, the Court construes "service profile" to mean, "a description of services for which a personal identification number (as construed herein) is authorized."

Defendants agree that a service profile describes services a PIN is authorized to use, but do not agree to Fenner's construction because it suggests that a PIN may only have one service profile. By inserting "the" before "services," Fenner's construction may improperly suggest that a PIN may only be authorized for one service profile, but it is clear from the patent that a PIN may be associated with more than one service profile. Thus, the Court will cut the word "the" from Fenner's proposed construction.

Regarding whether "valid service area" is necessarily a part of the "service profile,"[4] Defendants point out that Claim 8 is dependent from Claim 1, and provides, "a mobile user is denied log-on if the switch is not in valid service area for the service profile maintained by the billing authority identified by the billing code." Col. 6, ln. 59-62. Defendants argue Claim 8 establishes that the service profile referred to in Claim 1 includes a "valid service area," but the language of Claim 8 does not necessarily require such a limitation, and the specification provides "[a] service profile identifies the services available to a particular personal identification number." Col. 2, ln. 45-47. Accordingly,

[4] Defendants' examples of calling services "call waiting, paging, and voicemail" are not supported by the claims or specification, and the Court will not include them in the construction.

the Court construes "service profile" to mean "a description of services for which a personal identification number (as construed herein) is authorized."

Billing authority identified by the received billing code

The Court will not construe this phrase. Aside from the constructions given to "billing authority" and "billing code," the phrase will retain its plain and ordinary meaning, which offers a proper understanding of this phrase within the patent. Accordingly, this phrase will mean, "billing authority (as construed herein) identified by the received billing code (as construed herein)."

Storing in memory

Fenner argues for no construction, while Defendants would define "storing in memory" as "storing in the database memory of the radio frequency communication switch." Defendants argue that "memory" in Claim 1 provides antecedent basis for "the database memory" in Claim 3, and one skilled in the art reading the claims together would understand the "memory" in Claims 1 and 3 to be the same memory. The Court agrees.

Claim 1 describes the switch receiving a PIN and billing code, then requesting a service profile from the billing authority based on the PIN and billing code, and storing the service profile in memory. Claim 3 describes maintaining "a service profile for each mobile user active on the communications switch." Reading the claims together, leads to the conclusion that "the database memory" in Claim 3 refers to the "memory" contained in Claim 1. *See Georgia-Pacific Corp. v. United States Gypsum Co.*, 195 F.3d 1322, 1331 (Fed Cir. 1999), *citing Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1579, 34

USPQ2d 1673, 1679 (Fed. Cir. 1995). Further, the specification lends support for this reading. *See* '706 Patent, Figure 2.

Therefore, the Court construes "storing in memory," to mean "storing in the database memory of the radio frequency communication switch (as construed herein)."

Order of the steps

Defendants argue that certain steps of Claim 1 must occur in the order they appear in the claim, namely: 1[c] must occur after 1[b], 1[d] must occur after 1[c], and 1[e] must occur after 1[d]. Fenner contends that the Court need not assign a specific order to the steps, but maintains that steps 1[a] and 1[b] are interchangeable for sequencing purposes. Defendants have no dispute with Fenner's position on that point, but request that the Court adopt its sequence of steps 1[c], 1[d], and 1[e].

At step 1[c], a service profile is requested based on the "received billing code," which is described in step 1[b]. Therefore, step 1[c] may only occur after step 1[b]. The service profile requested in step 1[c] is then stored in memory in step 1[d], therefore, step 1[d] may only occur after 1[c]. Finally, step 1[e] describes "providing the mobile user access to the switch."

Logically, step 1[c] must occur after 1[b] and 1[d] must occur after 1[c] because the subsequent step relies on the previous step being performed. *Mantech envtl. Corp. v. Hudson Envtl. Servs., Inc.*, 152 F.3d 1368, 1375-76, 47 USPQ2d 1732, 1739 (Fed. Cir. 1998). However, unlike steps [c] and [d] there is nothing in the language of step [e] indicating that it relies on the other steps in the claim, and the specification does not "directly or implicitly [require] such a narrow construction." *Altiris, Inc. v. Symantec*

Corp., 318 F.3d 1363, 1370 (Fed. Cir. 2003), *citing Interactive Gift v. Compuserve Inc*., 256 F.3d 1323, 1343, 59 USPQ2d 1401, 1416 (Fed. Cir. 2001).

Accordingly, step 1[c] must occur after step 1[b] and step 1[d] must occur after step 1[c].

The '670 Patent

IP Address

Defendants[5] contend IP address should be defined as, "a fixed, unique, and unchanging identifier that has no internal structure to suggest network connection location information," and, as a compromise, Fenner submits that an IP address is "a fixed and unchanging identifier of a connection to the Internet represented by a series of numbers." Defendants maintain that an IP address must be "unique" and does not contain "internal structure to suggest network connection location information." In support of its second limitation, Defendants cite the claims, specification, and prosecution history.

Claims 1, 4, 6, and 14 provide for an IP address, "for identifying a mobile source of the data packet *independently of the physical media over which the mobile source is communicating*." One skilled in the art would understand that the IP address, as referenced in the claims, describes non-hierarchical addresses and the specification and prosecution history bear out that understanding.

During prosecution of the '670 patent's parent application, U.S. Patent No. 5,095,480 ("the '480 patent"), Fenner explicitly distinguished the prior art based on its use of hierarchical addressing. Using a telephone number as an example, Fenner

[5] In discussing the '670 terms, the Court will refer to UTStarcom, Inc., Nortel Networks, Inc., Cisco Systems, Inc., and Alcatel USA, Inc, collectively as "Defendants."

explained that the area code identifies an "area of the country in which the receiver is located…[t]he next three digits are an exchange that identify the switch to which a line to the receiver is connected…[and] the last four digits identify the line to the receiver." '480 Patent, File History at 143 (Amendment, 11/7/90 at 23). Thus, the prior art method relied on a hierarchical address made up of three sets of numbers that together identify a fixed physical location. By contrast, Fenner's method uses an address without such internal structure to identify a mobile source within a network, regardless of the physical location of that mobile source. The claim language cited above reflects this distinction, as does the specification. *See* 2:53-56, 4:40-47, 11:55-58, 17:35-38, 5:33-38, 6:9-13; 22:10-30.

As the prior art described a method of routing based on physical locations, a device moving from one physical location to another would be identified by a different code or address. 1:64-2:16. The IP address described in the '670 patent allows a mobile user to move within a network without changing its address. Accordingly, the address must be unique or its purpose within the invention is lost. Fenner argues that "unique" should not be read into the claims because it appears in Claims 4, 6, and 9, but does not appear in Claims 1 and 14. Defendants counter that the specification and prosecution history clearly require the IP address to be unique. *See* 2:40-42, 9:19-23, '480 File History at 144 (Amendment, 11/7/90 at 24). Reading the patent as a whole compels the conclusion that the IP address must be "unique."

Accordingly, the Court construes IP address to mean, "a fixed, unchanging, and unique identifier of a connection to the internet represented by a series of numbers that has no internal structure to suggest network connection location."

Internet protocol (IP) address for identifying a mobile

Defendants submit this phrase should mean, "the IP address identifies the mobile for routing purposes to each node that routes the data packet to the mobile." Initially, Fenner argued the phrase should not be construed, but eventually agreed to the first part of Defendants' construction, "the IP address identifies the mobile for routing purposes." However, Fenner persists that Defendants' last clause "to each node that routes the data packet to the mobile" is inappropriate, and the Court agrees.

Defendants' additional language implicates a system of nodes by requiring the IP address to identify the mobile to each node that routes the data packet to the mobile. However, the claimed invention deals mostly with the operation of individual nodes. Independent Claims 1, 4, and 6 begin with, "[i]n a communications node of a system" and the subsequent claim elements are not directed toward multiple nodes suggesting that the node is the focus of the claims. For example, the elements of claim 1, the "receiving", "storing", "looking up" and "forwarding" elements, are described within the specification as occurring at a single node (Figure 2 is described as "a schematic representation of the circuitry in an individual system node…"). 7:19-20. Claim 14 is structured differently, but is nonetheless focused on, "a message handling node for routing a data packet between two or more networks." Although the specification and prosecution history discuss the broader communication system, that discussion was largely contextual, providing a framework within which to place the claimed invention, but the invention itself is narrower. The larger system, to the extent it is not claimed, should not be read into an invention claiming a sub-part of that larger system.

Defendants counter that the specification and prosecution history referencing a larger system can be limiting in certain circumstances. Citing *Microsoft Corp. v. Multi-*

Tech Systems, Inc., 357 F.3d 1340 (Fed Cir. 2004), Defendants argue that Fenner publicly characterized the present invention as using an IP address to identify a mobile user to each node in the system to facilitate communication between a source and destination across a communications system. Having characterized the invention one way in the specification and to the PTO, Defendants argue, Fenner should not be allowed to characterize the invention in a different way before the Court. However, unlike in *Multi-Tech*, the prosecution history and specification of the '670 patent do not lead to the "inescapable conclusion" that the IP address identifies the mobile to each node that routes the data packet to the mobile. *See SciMed Life Sys., Inc. v, Advanced Cariovascular Sys., Inc*., 242 F.3d 1337, 1342.

In *Multi-Tech*, the Federal Circuit read a limitation appearing almost exclusively in the specification and prosecution history into the claims, requiring that the invention use a telephone line to transmit data packets. *Multi-Tech Systems*, 357 F.3d at 1349 (noting the specification referred to "data transmission 'over' or 'through' a telephone line roughly two dozen times.") In that case, and several like it, the Court found it appropriate to read limitations described in the specification and prosecution history into the claim because the limiting feature went to the heart of the invention or the specification limited the invention to embodiments with the particular feature. *See Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1369-70 (Fed. Cir. 2003); *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882-83 (Fed. Cir. 2000). Here, the prosecution history excerpts Defendants cite are general, providing a big picture framework for the invention, and while the specification describes the larger system as Defendants contend, those descriptions are not so unequivocal as to preclude other embodiments or limit the claims.

As it is not clear that the specification and prosecution history limit the claimed invention, the Court will construe "Internet protocol (IP) address for identifying a mobile" to mean "the IP address (as construed herein) identifies the mobile for routing purposes."

Physical Media Path

In an effort to come to an agreement on this term, both sides have changed their original positions[6] and offered compromise constructions. Fenner proposes physical media path should be construed as, "any path or route which allows the transfer of data packets to or from the node," and Defendants propose, "a path or route including a physical link which allows the transfer of data packets to and from the node." The Court construes "physical media path" to mean "a physical route or path which allows the transfer of data packets to and from the node."

Fenner's construction provides that the physical media path, "allows the transfer of data packets to *or* from the node" whereas Defendants' construction provides for "the transfer of data packets to *and* from the node." Although Fenner does not maintain the physical media path is a one-way path, the word "or" creates the possibility that the path either allows transfer to the node or from the node, but not both. Defendants' use of "and" will avoid that potential misunderstanding and properly describe the physical media path as facilitating transfer of data packets to the node as well as from the node.

[6] Fenner's original construction: a path or route corresponding to a physical layer link, such as ETHERNET, TOKEN RING, TOKEN BUS, FDDI and the like. Defendants original construction: a path or route including a physical link leading into and out of the communications node.

The Court construes "physical media path" to mean "a physical route or path which allows the transfer of data packets[7] to and from the node."

Storing the first IP address and associating it with a physical media path from which the first data packet was received[8]

Defendants argue that this phrase should mean, "the 'first IP address' that is associated with the recited 'physical media path' is obtained from the 'first data packet.'" Although this construction is not necessarily incorrect or confusing, it simply reorganizes the claim language to state an idea that is already apparent from the plain and ordinary meaning and the Court's construction of the terms within the phrase. The Court declines to adopt Defendants' construction because it offers no more guidance than the claim language alone. Accordingly, this phrase will mean, "storing the first IP address (as construed herein) and associating it with a physical media path (as construed herein) from which the first data packet was received."

Routing Information

Fenner argues that "routing information" should mean "information indicating the next path for the data packet to take" and Defendants offer the compromise construction "information indicating the next outbound communication link for the data packet to take."[9] The Court construes the term to mean, "information indicating the next physical media path (as construed herein) for the data packet to take." The Court selects "physical media path" instead of "link" or "path" to maintain consistency among the constructions.

[7] The parties agreed to construe "data packet" as "a bit string of specifically arranged fields including address fields and a message data field."

[8] This language appears in claim 1, but very similar language appears in claim 6, which, Defendants argue, should be construed in the same way.

[9] Defendants' original construction is, "identification of the physical media path that has been associated with the mobile receiver's IP address."

Remaining terms in the '670 Patent

The Court finds that the remainder of the disputed terms require no further construction aside from the constructions assigned herein.

Conclusion

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. For ease of reference, the Court's claim interpretations are set forth in a table attached to this opinion.

So ORDERED and SIGNED this 16th day of May, 2006.

JOHN D. LOVE
UNITED STATES MAGISTRATE JUDGE

CLAIM CONSTRUCTION CHART FOR THE '706 PATENT

Complete Language of Claim	***Fenner's Construction***	***Defendants' Construction***	***Court's Construction***
1. A method of providing access to a mobile user in a communications system having a plurality of interconnected radio frequency communication switches for selectively connecting ***calls*** *to mobile users via radio frequency links, a plurality of billing authorities for maintaining service profiles of mobile users and a plurality of location authorities for maintaining current locations of mobile users within the interconnected communication switches, the method comprising:*	***Calls*** *– The word "call" is found only in the preamble and the Court should not construe words found in the preamble UNLESS also used in the body of the claim. However, if a construction is needed, "calls" are "voice or data communications sessions" or "communications sessions."*	***Calls –*** *voice communication sessions*	***Calls*** *– No construction.*
receiving at a ***radio frequency communication switch*** *a* ***personal identification number*** *from a mobile user;*	***Radio frequency communication switch -*** *a personal communications system switch including radio frequency links.*	***Radio frequency communication switch –****a telecommunications device, with a radio frequency interface, that selectively connects calls*	***Radio frequency communication switch –****a switch with a radio frequency interface*

Complete Language of Claim	***Fenner's Construction***	***Defendants' Construction***	***Court's Construction***
	Personal identification number *- a number corresponding to individual system users*	***Personal identification number –*** *a number, separate from a billing code, identifying an individual mobile user that permits someone to call the user using that number*	***Personal identification number –*** *a number, separate from a billing code (as construed herein), identifying an individual system user*
receiving from the mobile user at the communication switch a ***billing code*** *identifying one of the plurality of* ***billing authorities maintaining a service profile for the mobile use****, wherein different ones of the plurality of billing authorities may maintain the service profile or a second profile for the mobile user identified by the personal identification number;*	**Billing code –** identifies a particular billing authority	***Billing code –*** *a number code, separate from the personal identification number, that enables selection of a billing authority*	***Billing code –*** *a code, separate from the personal identification number (as construed herein), identifying a particular billing authority (as construed herein).*
	Billing authorities – authorities which track billing costs associated with a personal identification number	***Billing authorities –*** *the different entities responsible for billing individuals for use of allowed calling services*	***Billing authorities –*** *the different entities which track billing costs associated with a personal identification number (as construed herein).*
	Billing authorities maintaining a service profile for the mobile user – billing authorities (as construed herein) maintaining a service profile (as construed herein) for the mobile user (as construed herein). All terms in this phrase, unless noted, retain their plain and ordinary meaning.	***Billing authorities maintaining a service profile for the mobile user –*** *more than one billing authority maintaining a service profile for the mobile user*	***Billing authorities maintaining a service profile for the mobile user –*** *more than one billing authority (as construed herein) maintaining a service profile (as construed herein) for the mobile user*
	Service Profile - describes the services for which a personal identification number is authorized.	***Service profile –*** *a description of the valid service area and any authorized calling services (e.g., call waiting, paging, voicemail)*	***Service profile –*** *a description of services for which a personal identification number (as construed herein) is authorized.*

Complete Language of Claim	***Fenner's Construction***	***Defendants' Construction***	***Court's Construction***
requesting a service profile of the mobile user from the ***billing authority identified by the received billing code;***	**Billing authority identified by the received billing code –** billing authority (as construed herein) identified by the received billing code (as construed herein). All terms in this phrase, unless noted, retain their plain and ordinary meaning.	***Billing authority identified by the received billing code –*** *billing authority (as construed herein) identified by the received billing code (as construed herein)*	***Billing authority identified by the received billing code –*** *billing authority (as construed herein) identified by the received billing code (as construed herein)*
storing in memory *the service profile received from the billing authority; and*	**Storing in memory –** plain and ordinary meaning; no construction needed	***Storing in memory –*** *storing in the database memory of the radio frequency communication switch*	***Storing in memory –*** *storing in the database memory of the radio frequency communication switch*
Order of the Steps	*Plaintiff does not believe that the Court should determine a specific order of steps recited in the claims and does not propose any such order either step 1[a] or 1[b] may immediately precede step 1[c].*	*1[c] must occur after 1[b]* *1[d] must occur after 1[c]* *1[e] must occur after 1[d]*	*1[c] must occur after 1[b]* *1[d] must occur after 1[c]*

CLAIM CONSTRUCTION CHART FOR THE '670 PATENT

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
1. In a communications node of a system, a method for routing data packets comprising:			
receiving a first **data packet**, the data packet including a a first **internet protocol (IP) address for identifying a mobile** source of the data packet independently of the physical media over which the mobile source is communicating;			
	internet protocol (IP) address for identifying a mobile - IP address (as construed herein) for identifying a mobile. All terms in this phrase, unless noted, retain their plain and ordinary meaning.	**internet protocol (IP) address for identifying a mobile** - the IP address identifies the mobile for routing purposes, to each node that routes the data packet to the mobile.	**internet protocol (IP) address for identifying a mobile** - the IP address (as construed herein) identifies the mobile for routing purposes.
	IP address - an internet protocol identifier at the network layer defined by standards organizations, such as the ISO (International Standards Organization). In an effort to reach a compromise, Fenner also offers the following construction: "An IP address is an identifier of a device connected to the Internet represented by a series of numbers."	**IP address** – a fixed, unique, and unchanging identifier that has no internal structure to suggest network connection location information.	**IP address** – a fixed, unique, and unchanging identifier of a connection to the internet represented by a series of numbers that has no internal structure to suggest network connection location.

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
storing the first IP address and associating it with a *physical media path* from which the first data packet was received; receiving a second data packet, the second data packet including the first IP address for identifying the mobile source as a destination of the second data packet and a second IP address for identifying the sender of the data packet;	**Physical media path -** a path or route corresponding to a physical layer link, such as ETHERNET, TOKEN RING, TOKEN BUS, FDDI and the like. However, a proper and perhaps more clear alternative construction of "physical media path" is: "any path or route which allows the transfer of data packets to or from the node."	**Physical media path** – (original construction) a path or route including a physical link leading into and out of the communications node. To narrow the issues before the Court, Defendants propose the following revised construction: "a path or route including a physical link which allows the transfer of data packets to and from the node."	**Physical media path -** a physical route or path which allows the transfer of data packets to and from the node.
	storing the first IP address and associating it with a physical media path from which the first data packet was received – storing the first IP address (as construed herein) and associating it with a physical media path (as construed herein) from which the first data packet (as construed herein) was received. All terms in this phrase, unless noted, retain their plain and ordinary meaning.	**storing the first IP address and associating it with a physical media path from which the first data packet was received** – the "first IP address" that is associated with the recited "physical media path" is obtained from the "first data packet."	**storing the first IP address and associating it with a physical media path from which the first data packet was received** – storing the first IP address (as construed herein) and associating it with a physical media path (as construed herein) from which the first data packet was received.
looking up the physical media path associated with the first IP address; and forwarding the second data packet based on the stored physical media path.			
2. The method of claim 1 wherein first IP address uniquely identifies the mobile source for routing data packets within public; interconnected networks.			

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
4. In a communications node of a system of interconnected networks, a method for routing data packets comprising:			
storing a unique internet protocol **(IP) address for identifying a mobile** receiver of a data packet **anywhere within the interconnected networks**, independently of the physical media over which the mobile receiver is communicating;	**internet protocol (IP) address for identifying a mobile . . . anywhere within the interconnected networks –** IP address (as construed herein) for identifying a mobile anywhere within the interconnected networks. All terms in this phrase, unless noted, retain their plain and ordinary meaning.	**internet protocol (IP) address for identifying a mobile . . . anywhere within the interconnected networks –** the IP address identifies the mobile for routing purposes, to each node that routes the data packet to the mobile.	**internet protocol (IP) address for identifying a mobile –** the IP address (as construed herein) identifies the mobile for routing purposes.
associating the unique IP address with a physical media path;			
receiving a data packet having a source IP address identifying a sender of the data packet and the mobile receiver's IP address identifying the mobile receiver as a destination for the data packet;			
looking up the physical media path along which to forward the data packet using the entire mobile receiver's IP address contained in the data packet; and			

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
forwarding the data packet according to the physical media path.			
6. A communications node for routing data packets,			
each such data packet including a **first internet protocol (IP) address for uniquely identifying a mobile** source of each such data packet independently of the physical media over which the mobile source is communicating **within the interconnected networks**	**first internet protocol (IP) address for uniquely identifying a mobile . . . within the interconnected networks—** IP address (as construed herein) for uniquely identifying a mobile within the interconnected networks. All terms in this phrase, unless noted, retain their plain and ordinary meaning.	**first internet protocol (IP) address for uniquely identifying a mobile . . . within the interconnected networks** – the IP address identifies the mobile for routing purposes, to each node that routes the data packet to the mobile.	**internet protocol (IP) address for identifying a mobile –** the IP address (as construed herein) identifies the mobile for routing purposes.
the communications node including a packet routing device for routing the data packets and a data structure stored in a memory for **associating the first IP address of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path from which the first data packet was received;**	**associating the first IP address of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path from which the first data packet was received** – associating the first IP address (as construed herein) of a first data packet (as construed herein) sent by a mobile source with a physical media path identifier identifying the physical media path (as construed herein) from which the first data packet was received. All terms in	**associating the first IP address of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path from which the first data packet was received** – the "first IP address" that is associated with the recited "physical media path" is obtained from the "first data packet."	**associating the first IP address of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path from which the first data packet was received** – associating the first IP address (as construed herein) of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path (as construed herein) from which the first data packet was received.

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
	this phrase, unless noted, retain their plain and ordinary meaning.		
wherein, when the communications node receives a second data packet that includes the first IP address as identifying the mobile source as a destination of the second data packet, and a second IP address for identifying a source of the second data packet, the packet routing device looks up in the data structure the physical media path identifier associated with the first IP address and forwards the second data packet to the physical media path identified by the physical media path identifier.			
7. The communication system of claim 6 wherein the first IP address is a globally unique identifier.			

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
14. A communication system comprising a message handling node for routing a data packet between two or more networks,			
data packet destined for a mobile receiver having an **internet protocol (IP) address for identifying the mobile receiver to each of the two or more networks** independently of the physical media path over which the mobile receive is communicating;	**internet protocol (IP) address for identifying the mobile receiver to each of the two or more networks** – IP address (as construed herein) for identifying the mobile receiver to each of the two or more networks. All terms in this phrase, unless noted, retain their plain and ordinary meaning.	**internet protocol (IP) address for identifying the mobile receiver to each of the two or more networks** – the IP address identifies the mobile for routing purposes, to each node that routes the data packet to the mobile.	**internet protocol (IP) address for identifying a mobile –** the IP address (as construed herein) identifies the mobile for routing purposes.
the data packet including a source IP address for identifying a sender of the data packet and the mobile receiver's IP address as a destination IP address;			
the message handling node storing a data structure associating **routing information** for the IP address of the mobile receiver and routing the data packet based on the routing information for the mobile receiver's IP address.	**routing information** - information indicating the next path for the data packet to take	**routing information** - (original construction) identification of the physical media path that has been associated with the mobile receiver's IP address. To narrow the issues before the Court, Defendants offer the following revised construction: "information indicating the next outbound communication link for the data packet to take."	**routing information** - information indicating the next physical media path (as construed herein) for the data packet to take.

Complete Language of Claim	Fenner's Construction	Defendants' Construction	Court's Construction
15. The communication system of claim 14, wherein the at least one messaging handling node routes the data packet based on the entire IP address of the mobile receiver.			
16. The communication system of claim 14 wherein the IP address of the mobile receiver is a globally unique IP address.			